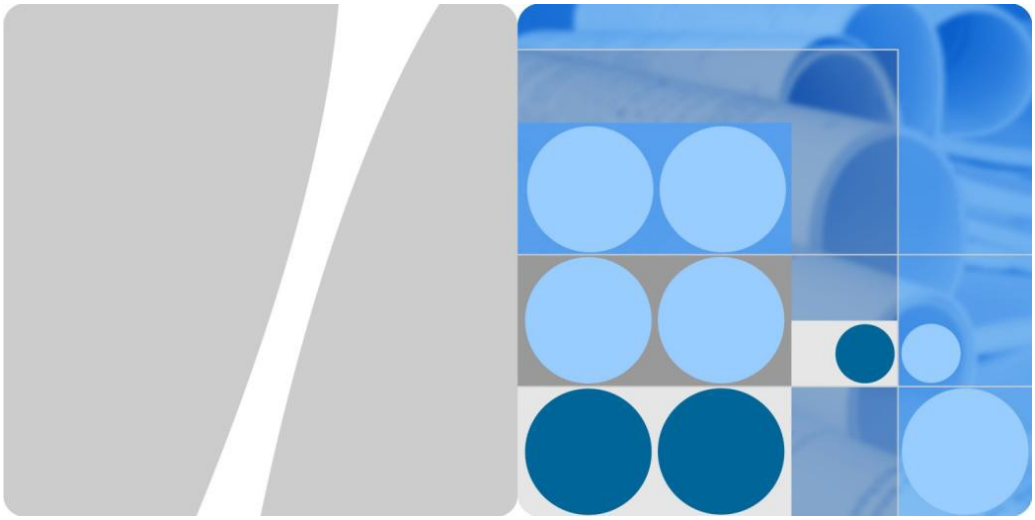

Distributed Energy Storage System

Quick Installation Guide

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CATALOGUE

1 Overview

1.1 Applicable Products

This manual is applicable to the following types of energy storage integrated systems

- KYT100kW-216kWh-B
- KYT100kW-241kWh-B
- KYT125kW-216kWh-B
- KYT125kW-241kWh-B

Model Definition：

- KYT：energy storage systems
- 100kW/125kW：power of the inverter（The specific equipment power is subject to the physical object）
- 216kWh/241kWh：battery capacity（The specific equipment capacity is subject to the physical object）
- A：Outdoor energy storage machine with temperature control

* The model matching listed is the recommended optimal matching, and the actual model is subject to the received product.

2 Product Information

2.1 Basic Dimensions

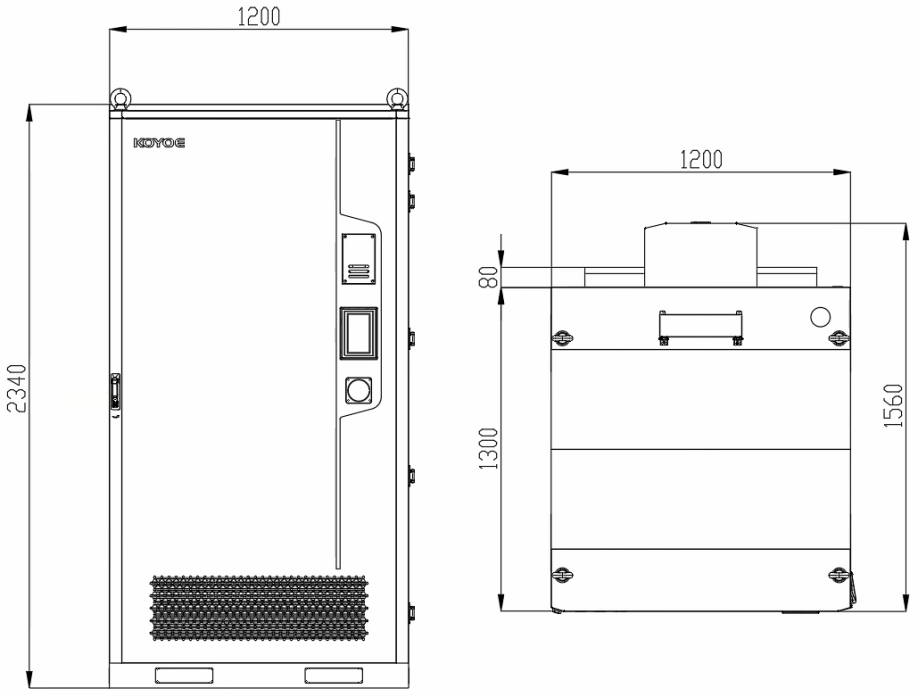
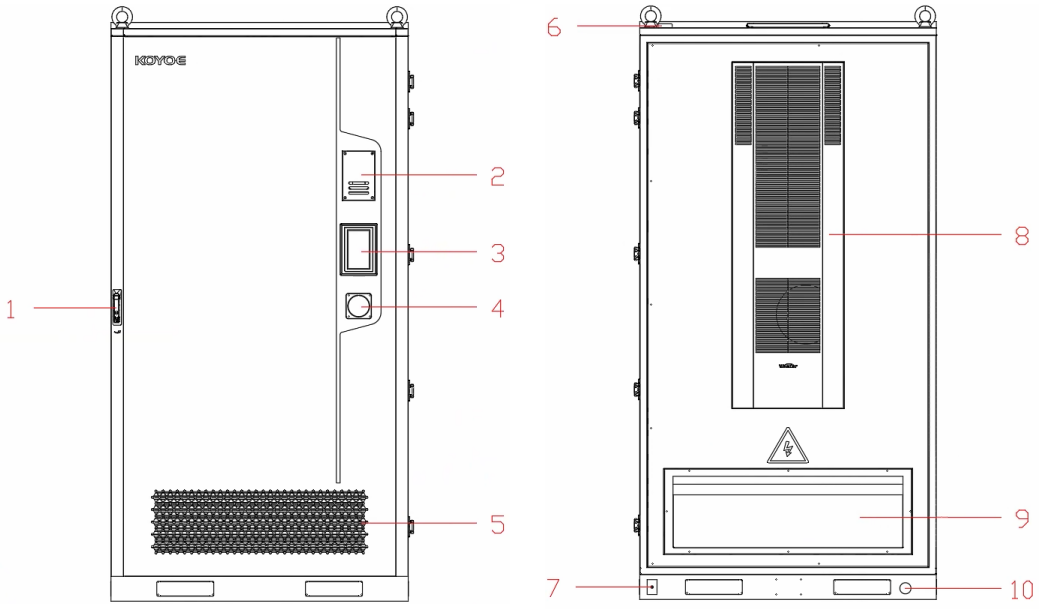


Fig. 2-1 Cabinet size unit: mm（KYT125kW-216kWh-B for example）

2.2 Part Description



1：Running status panel 2：touch screen 3：scram button 4：door lock 5：air conditioner 6：ventilation opening 7：wire socket 8：ground copper bar

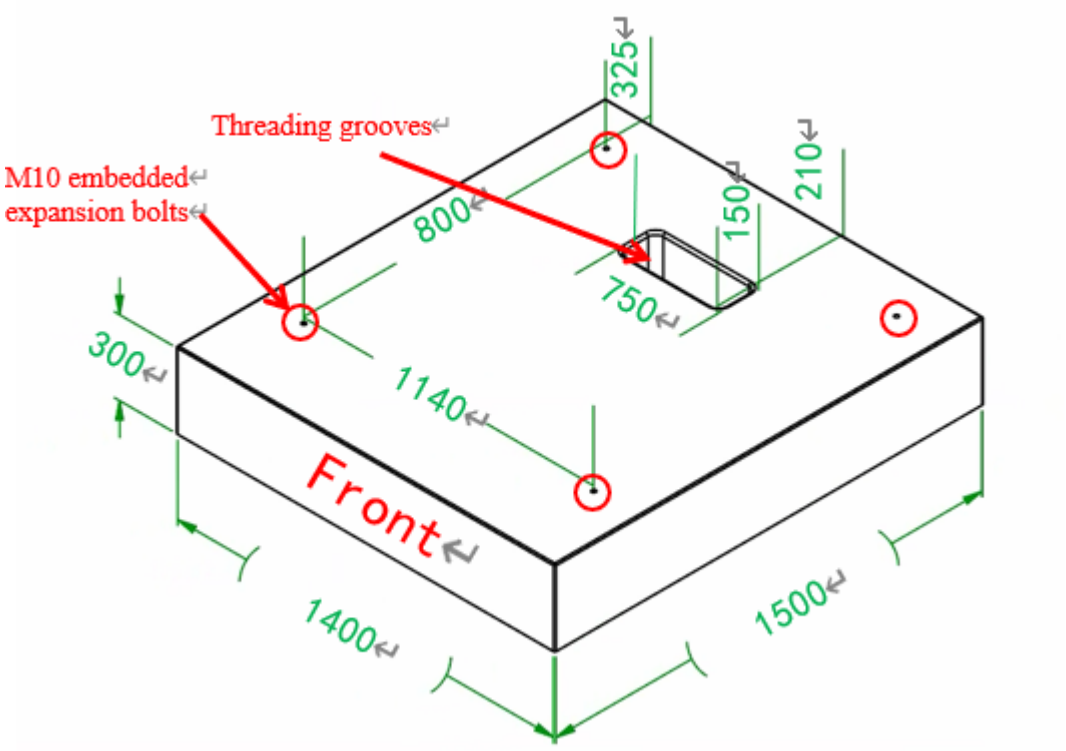
Fig. 2-2 Energy storage cabinet component name（KYT125kW-216kWh-B for example）

3 Preparation for Installation

3.1 Equipment Base Cement Base

Fig. 3-1 Cabinet equipment cement foundation form

3.2 Recommended Size for Device Base



4 Equipment Transportation

4.1 Forklift Truck Transportation

The forklift should be equipped with sufficient carrying capacity (at least 5 tons), and if the installation site is level, the forklift can be used to move the storage cabinet. The bottom of the energy storage cabinet is equipped with fork holes specially for forklift transportation. Move the energy storage cabinet through the fork hole. If the forklift transportation method is used, the following requirements should be met：

- Pin length should be at least 1250mm；
- The pins should be inserted into the square jack at the bottom of the cabinet and fully inserted into place so that the pins are completely through the cabinet;
- This picture shows the side forklift transportation mode, please choose the safe and appropriate forklift direction according to the physical material and working conditions.

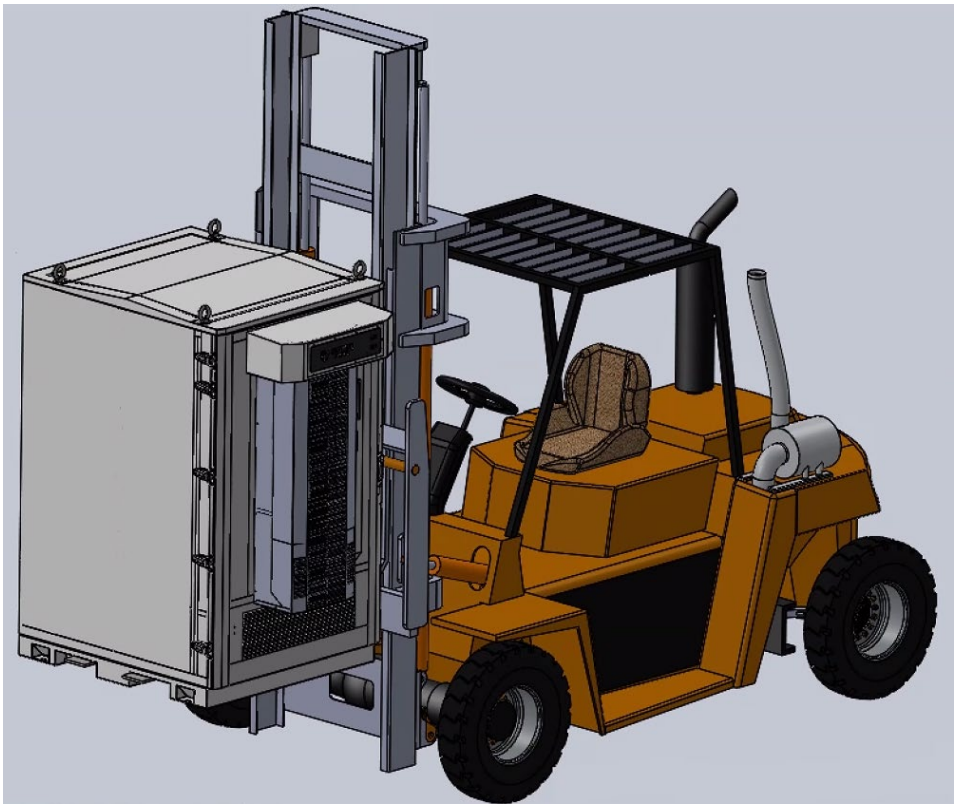


Fig. 4-1 Forklift truck transportation （KYT125kW-216kWh-Bfor example）

4.2 Transport by Lifting

When lifting the energy storage cabinet, the following requirements should be met at least：

- The strength of the sling used should be sufficient to withstand the weight of the storage cabinet;
- Ensure that all sling connections are safe and reliable, ensuring that each sling connected to the corner piece is of equal length;
- The length of the sling can be adjusted appropriately according to the actual requirements of the site;
- During the whole lifting process, the energy storage cabinet must be stable and not skewed;
- Please use the four rings of the energy storage cabinet to lift it;
- Take all necessary auxiliary measures to ensure the safety and smooth lifting of the storage cabinet.

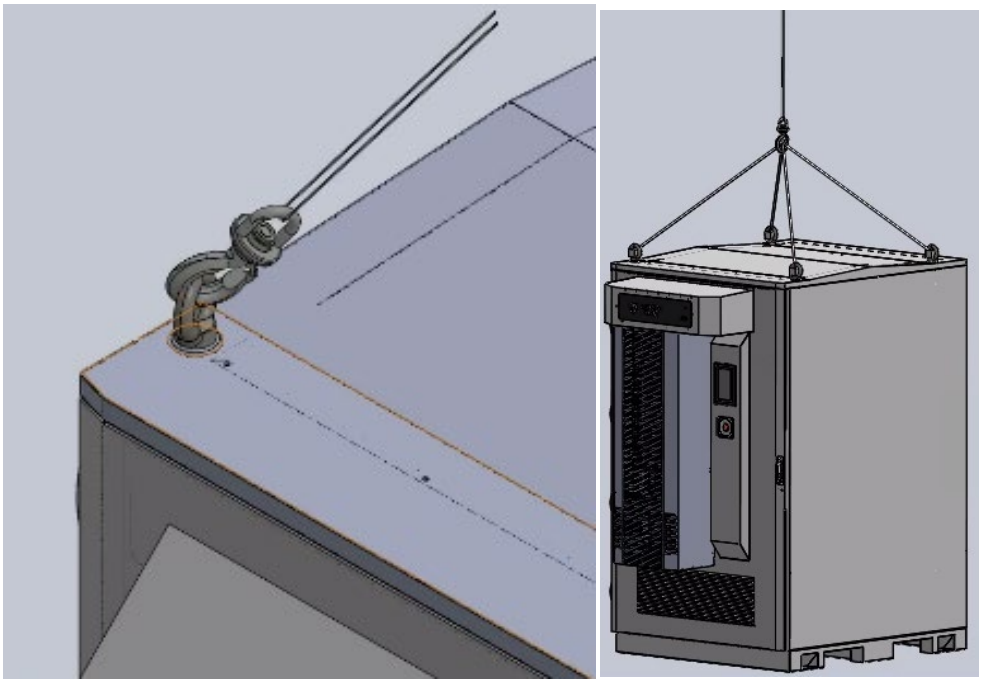


Fig. 4-2 Transport by lifting （KYT125kW-216kWh-Bfor example）

5 Fixed Installation

5.1 Fixed with Bolts

After confirming that the foundation construction meets the requirements and is dry, strong, and smooth enough, the energy storage cabinet is transported to the predetermined location. Fastening bolts are used to fix the energy storage cabinet to the foundation. The fixed position of the fastening bolt is shown in the figure.

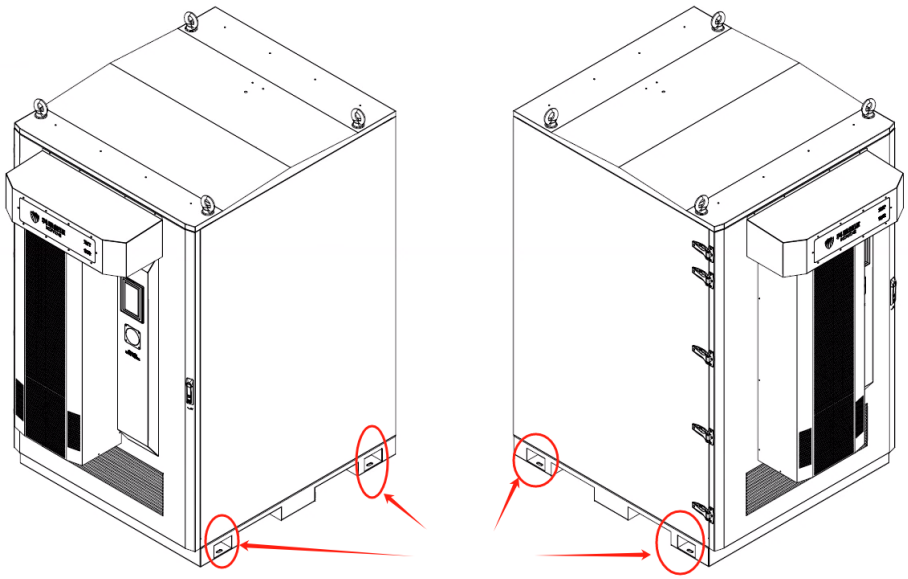


Fig. 5-1 Fixed position of the cabinet （KYT125kW-216kWh-Bfor example）

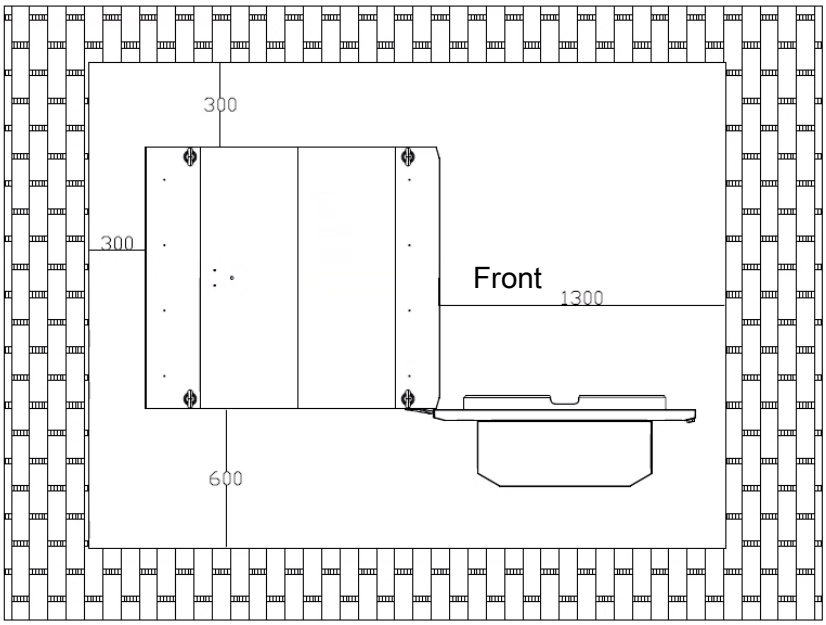
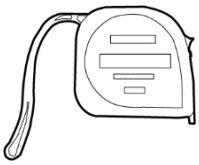
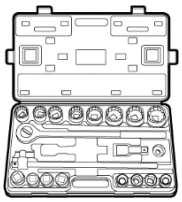
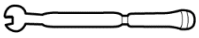
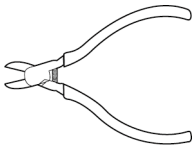
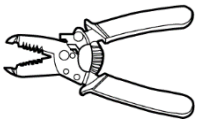
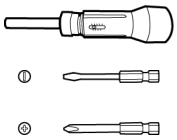
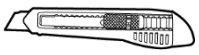
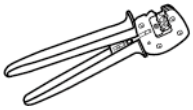
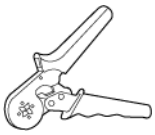
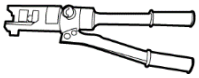
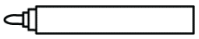
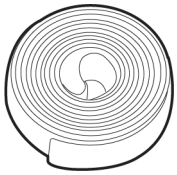
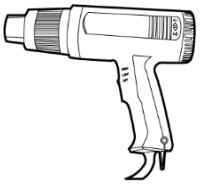
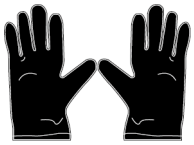
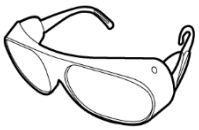


Fig. 5-2 The size of the range without occlusion around the cabinet (unit: mm)

6 Fixed Installation

6.1 Fixed with Bolts

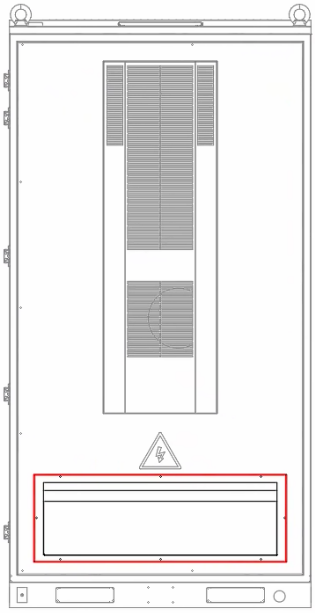
 Steel tape	 Torque socket wrench	 Torque wrench
 Diagonal pliers	 Wire stripper	 Torque screwdriver
 Rubber hammer	 Utility knife	 Wire cutters
 Crimping tool	 Cold-press terminal crimping pliers	 Hydraulic pliers
 Cable tie	 Vacuum cleaner	 Multimeter
		

Marker pen	Level	Thermal casing
 Hot air blower	 Safety shoes	 Dust mask
 Safety gloves	 Safety goggles	

6.2 Remove Electrical Cabinet Wiring Panel

Step 3 : Remove the screws and open the wiring sealing plate at the back of the cabinet (the circle position in the following picture) to reveal the wiring panel position; Remove the screw on the transparent Plexiglas plate (the box position in the following picture), and expose the wiring position.

Note：When wiring, please confirm that the external grid is disconnected and the energy storage device is turned off.



Step 3

Fig. 6-1 Wiring position of energy storage cabinet （KYT125kW-216kWh-Bfor example）

6.3 AC Connection

It is recommended to use 50mm² 5-core multi-strand oxygen-free copper cable. The color is yellow-green red + blue + yellow-green.

For AC terminal L1, L2, L3, N, and PE terminals, circular bare end cold pressing terminals are recommended.

Follow these steps to make the harness：

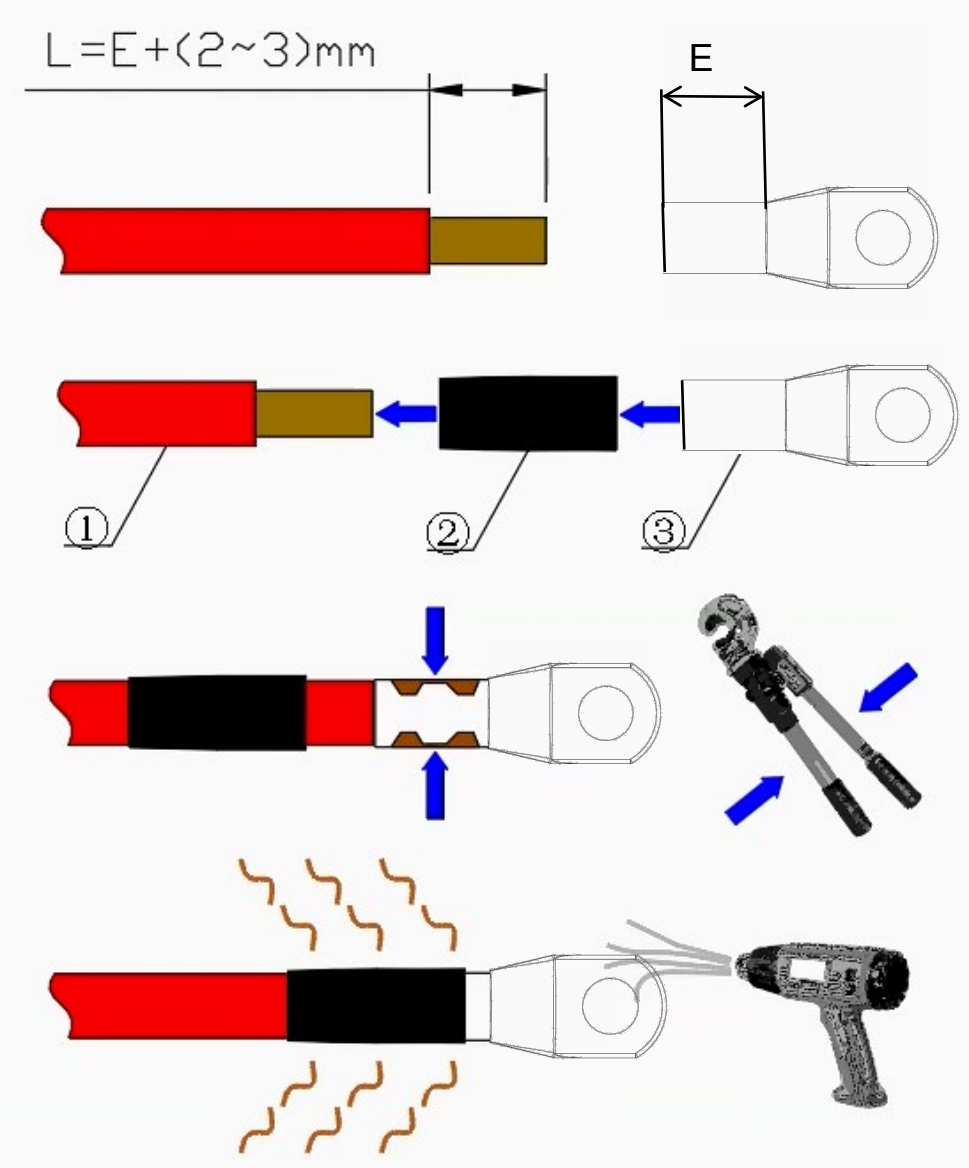


Fig. 6-2 Cabinet AC line crimping ①：wiring harness ②：heat shrink tubing ③：terminal（KYT125kW-216kWh-Bfor example）

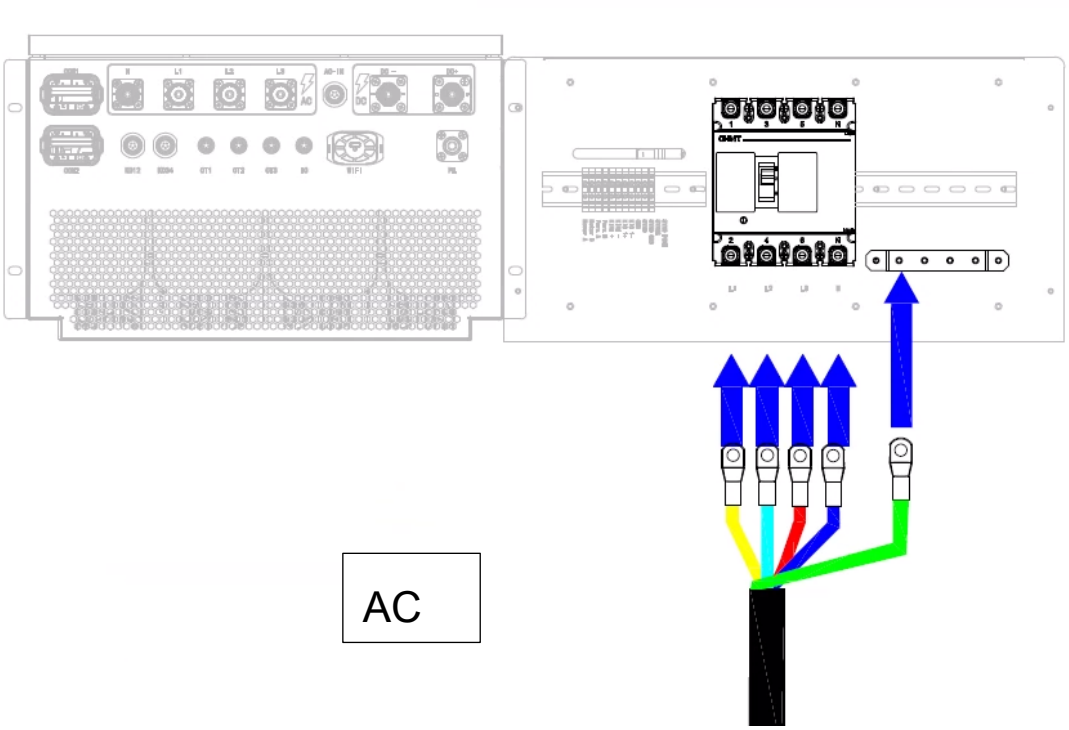


Fig. 6-3 AC connection position of cabinet （KYT125kW-216kWh-Bfor example）

6.4 COM Connection

A 0.5mm² red-black cable is recommended. In order to ensure reliable communication, it is recommended to use shielded twisted pair

The terminal is recommended to use the sheet type bare end cold press terminal

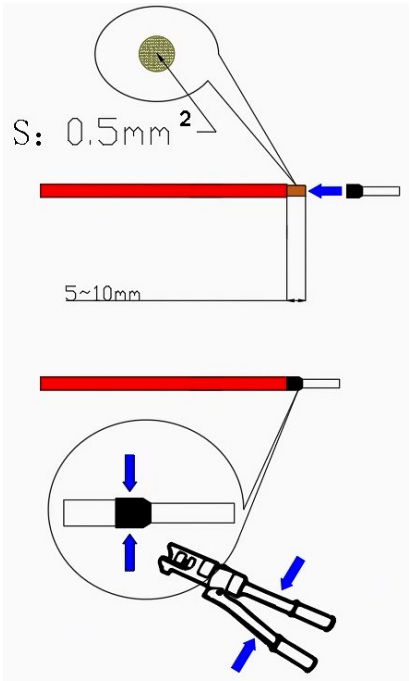


Fig. 6-4 Cabinet COM line crimping （KYT125kW-216kWh-Bfor example）

Table 1　COM1 Interface Description

No.	Description	No.	Description
1	Metera A	13	KIN3+
2	Metera B	14	KIN3-
3	PARA-A	15	GND-S
4	PARA-B	16	GND-S
5	CAN-L	17	NTC+
6	CAN-H	18	NTC-
7	GND-S	19	GEN
8	GND-S	20	COM
9	KIN1+	21	DRM3/7
10	KIN1-	22	DRM4/8
11	KIN2+	23	DRM1/5
12	KIN2-	24	DRM2/6

Table 2　COM2 Interface Description

No.	Description	No.	Description
1	CT_T/+	11	SYNC
2	CT_T/-	12	SYNC GND
3	CT_S/+	13	LCD_+12V
4	CT_S/-	14	GND-S
5	CT_R/+	15	LCD485A
6	CT_R/-	16	LCD485B
7	GND-S	17	CAN_H
8	GND-S	18	CAN_L
9	METER B	19	SYNC2
10	METER A	20	SYNC POWER

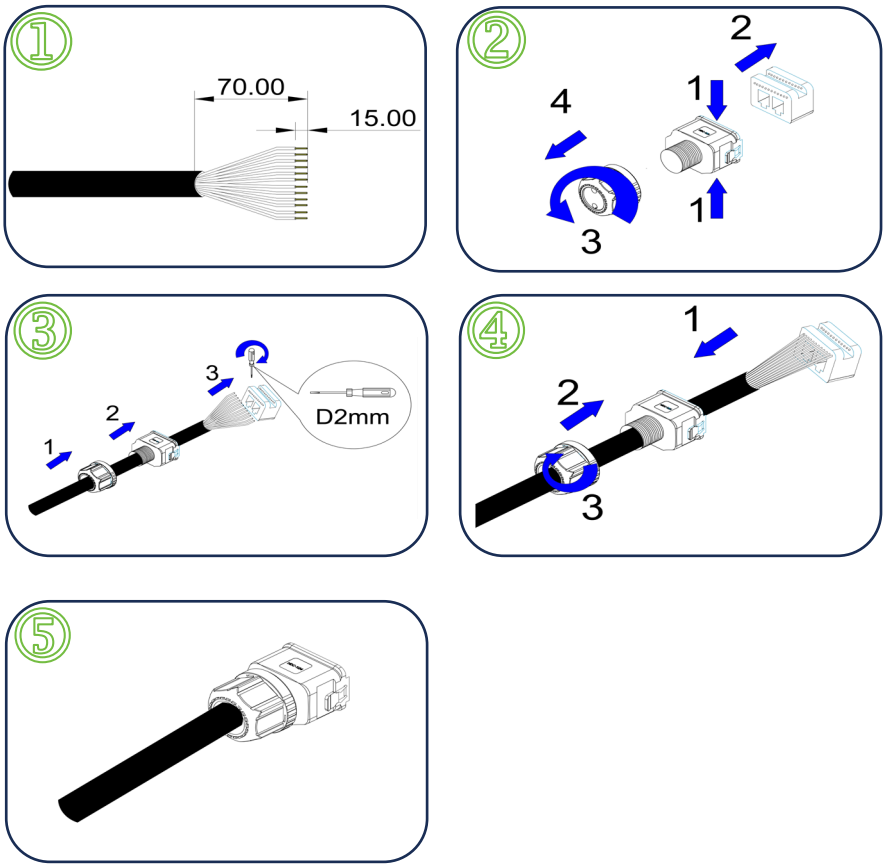


Fig. 6-5 Communication box wiring

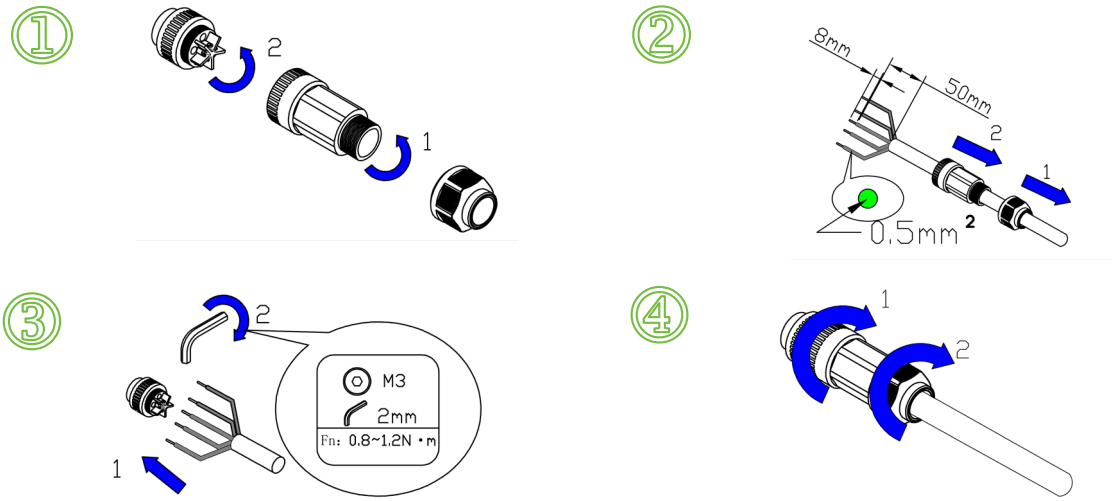


Fig. 6-6 Communication five-core terminal wiring

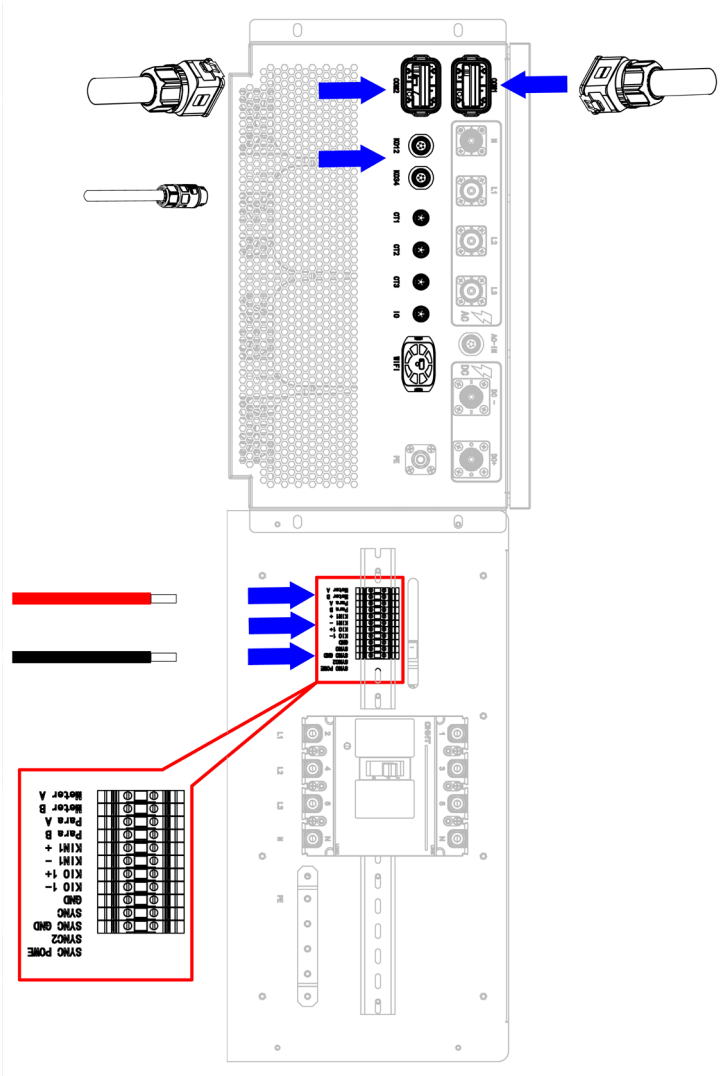


Fig. 6-7 COM connection position of cabinet （KYT125kW-216kWh-Bfor example）

6.5 End of Connection

According to the inlet and outlet line hole design of the storage cabinet base, the cable must be laid in advance at the inlet and outlet line position of the equipment base, and introduced into the equipment through the inlet and outlet line hole at the bottom of the cabinet. At the same time, the appropriate cable is selected according to the requirements of the equipment inside the energy storage cabinet.

When wiring, ensure electrical insulation and comply with EMC specifications. Power cables, power supply and communication cables should be laid in layers. And if necessary, provide protection and support for the cable to reduce the stress of the cable.

Make sure all wiring is correct and firm. The gap of the cable inlet and outlet hole on the side of the energy storage cabinet shall be blocked with fire mud. At the same time, the installation foundation of the energy storage cabinet should be waterproof.

After the above work is completed, install the wiring sealing plate back.

7 Power On

7.1 Power On- Battery

A. The MSD module of each battery pack is sequentially inserted into the corresponding interface;

B. Open the G/S load switch of the main control module;

C. Turn on the control switch

* For each position, please refer to Fig. 7-1 for the overview of the operation switch position

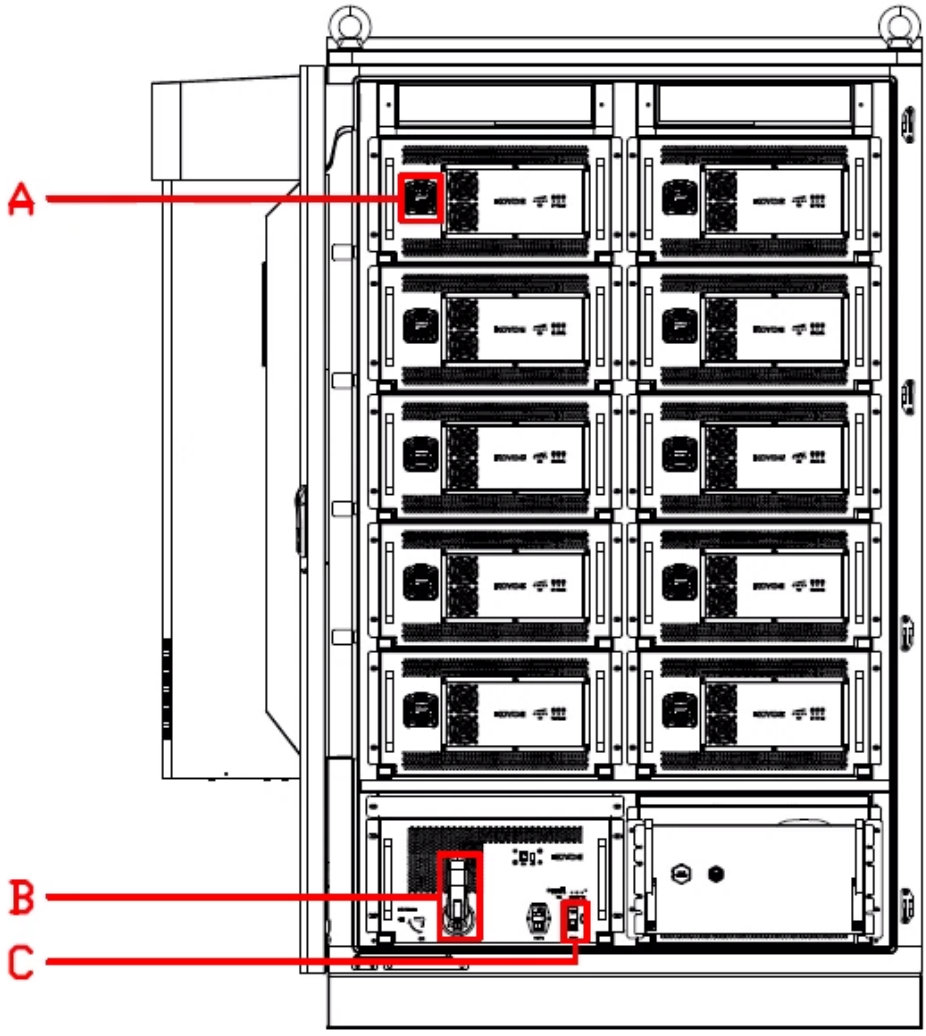


Fig. 7-1 Overview of operation switch position （KYT125kW-216kWh-Bfor example）

8 Power On/Off Operation

8.1 Power On

For the location of each circuit breaker, please refer to the ‘Fig. 7-1’

Step 1: Complete the auxiliary power supply and main loop wiring, measure the voltage and frequency to meet the system requirements, and carry out the next operation；

Step 2: Turn on storage cabinet power supply: Operate S/G load switch closing；

Step 3: Turn on the BCMU control box in the energy storage cabinet: close the control switch, and the battery switch box is powered up. At this time, the touch screen and PCS are charged；

Step 4: Close the three-phase power supply in the AC outdoor cabinet, and open the AC circuit breaker switch.

- - Since then, the system power on is completed, you can check the operation touch screen, check whether the system is normal.

8.2 Power Off

Step 1: First, control the Web interface or touch screen interface to stop the system and wait for the power of each end to drop to 0 before operating the following steps；

Step 2: Disconnect AC outdoor cabinet, AC circuit breaker switch is disconnected;

Step 3: Disconnect the BCMU control box in the battery outdoor cabinet: Disconnect the control switch；

Step 4: Disconnect battery outdoor cabinet power: Operate S/G load switch to disconnect;

- - Since then, the system is powered down to complete.

8.3 Manual reading

For detailed instructions, please read the manual carefully. The latest manual can be obtained at http://download.koyoe.com/, or scan the QR code below.

Note：The manual is only for quick understanding of the product installation method, specific matters need to comply with the requirements of the manual.

DANGER

There is a danger of electric shock when touching the contacts, terminals, etc, connected to the power grid or equipment！

• Do not touch terminals or conductors connected to the grid loop.

•Pay attention to any instructions or safety instructions for connecting to the grid.

DANGER

Fatal high voltage exists inside the product!

- Pay attention to and follow the warning label on the product.
- Observe the safety precautions listed in this manual and other related document of this equipment.
- Comply with the relevant safety precautions and protection precautions for lithium batteries.

DANGER

Damaged equipment or system failure can cause electric shock or fire!

- Preliminary visual inspection of equipment for damage or other hazards before operation.
- Check that other external devices or circuit connections are secure.
- Ensure that the device is in a safe state before operation.

WARNING

The installation and operation of the integrated energy storage system must comply with the relevant standards and regulations of the country/region where the project is located.